

# ISO 10300-1:2014-04 (E)

## Calculation of load capacity of bevel gears - Part 1: Introduction and general influence factors

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
Introduction .....		v
1	Scope .....	1
2	Normative references .....	1
3	Terms and definitions .....	2
4	Symbols and units .....	2
5	Application .....	8
5.1	Calculation methods .....	8
5.2	Safety factors .....	9
5.3	Rating factors .....	9
5.4	Further factors to be considered .....	10
5.5	Further influence factors in the basic formulae .....	11
6	External force and application factor, $K_A$ .....	12
6.1	Nominal tangential force, torque, power .....	12
6.2	Variable load conditions .....	12
6.3	Application factor, $K_A$ .....	13
7	Dynamic factor, $K_v$ .....	13
7.1	General .....	13
7.2	Design .....	14
7.3	Manufacturing .....	14
7.4	Transmission error .....	14
7.5	Dynamic response .....	15
7.6	Resonance .....	15
7.7	Calculation methods for $K_v$ .....	15
8	Face load factors, $K_H$ , $K_F$ .....	25
8.1	General documents .....	25
8.2	Method A .....	25
8.3	Method B .....	25
8.4	Method C .....	26
9	Transverse load factors, $K_H$ , $K_F$ .....	27
9.1	General comments .....	27
9.2	Method A .....	28
9.3	Method B .....	28
9.4	Method C .....	30
9.5	Running-in allowance, $y$ .....	31
Annex A (normative) Calculation of virtual cylindrical gears -- Method B1 .....		35
Annex B (normative) Calculation of virtual cylindrical gears -- Method B2 .....		47
Annex C (informative) Values for application factor, $K_A$ .....		53

<b>Annex D (informative) Contact patterns .....</b>	<b>54</b>
<b>Bibliography .....</b>	<b>58</b>